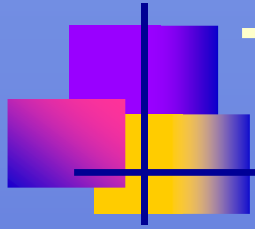




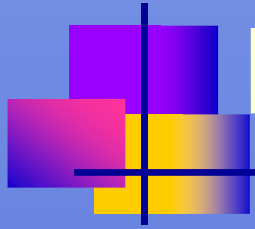
New Directions for the Clean Fuels Outlet Regulation

Leslie Goodbody
ZEV Infrastructure Section
April 1, 2010
Cal/EPA, Byron Sher Auditorium



Today's Topics

- Resolution 09-66
- Current Regulation
- Major proposed changes
 - Designated clean fuels and vehicles
 - Regulated Party
 - Activation trigger
 - Compliance path
- Regulatory Timeline

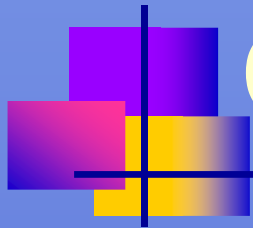


Resolution 09-66

Pertains mostly to the ZEV regulation but...

- Includes complementary policies to spur infrastructure :
 - Financial incentives
 - Regulatory incentives
 - Regulatory mandate





Current CFO Regulation

- Assumes alt fuel needed to meet LEV
 - CNG, LPG, Ethanol, Methanol
 - Electricity specifically excluded
- Trigger: 20,000 vehicles
- Regulated parties: owner/lessors of gasoline retail outlets
 - Must offer clean fuel at some stations
- Sunset at 10% penetration



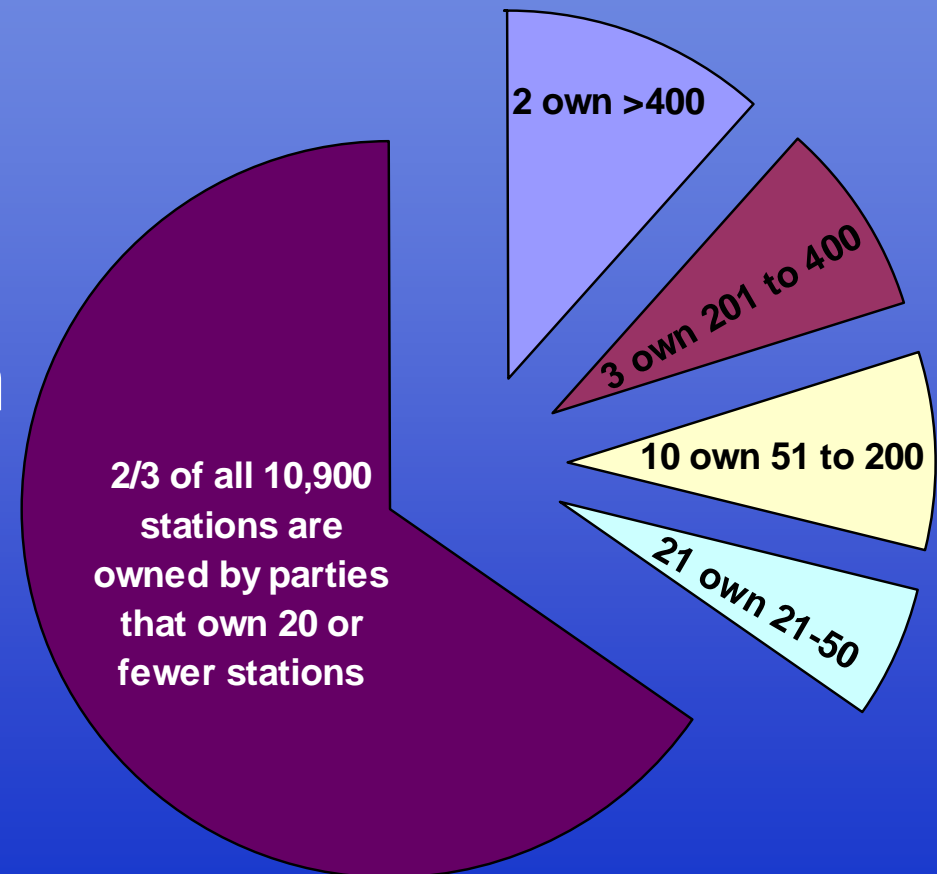
Designated Clean Fuel Vehicles (DCFV) Definition

- Propose changing from LEV to AFVs that meet:
 - Greenhouse gas fleet average emission standards
 - SULEV emission standards or
 - ZEV emission standards
- What about electricity?
 - Different fueling model
 - Legal issues



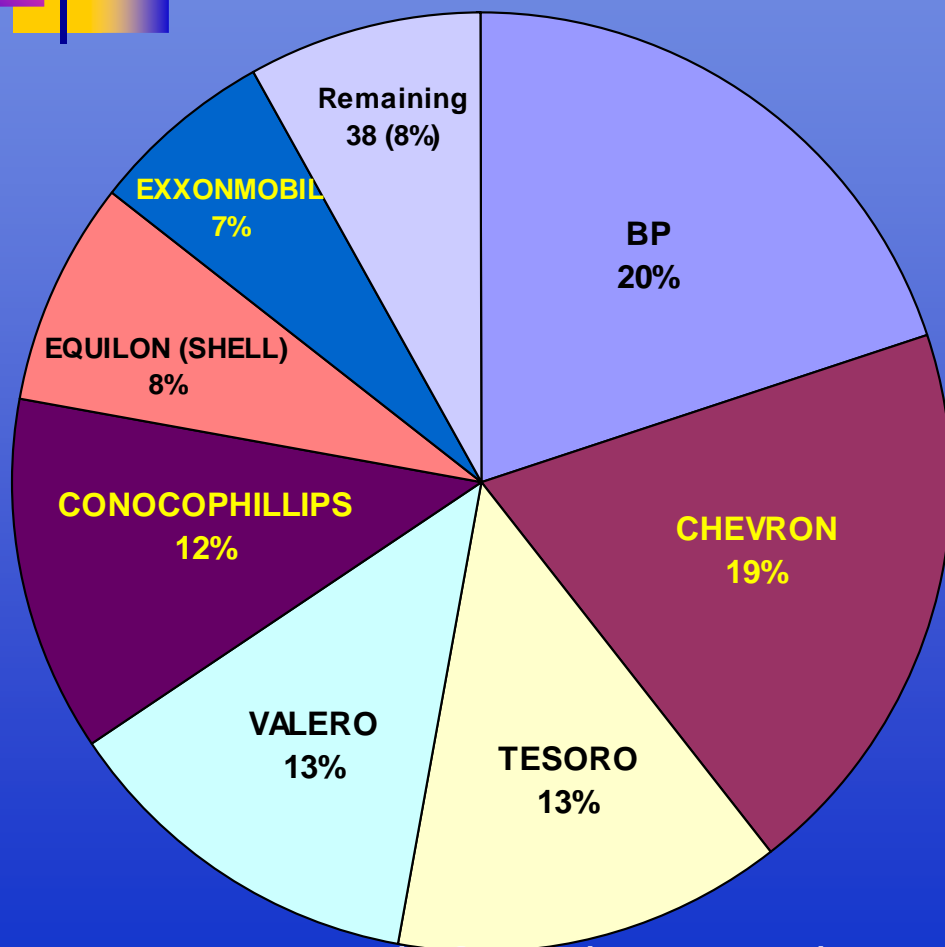
Owners/lessors are regulated

- Only Chevron, Shell, 7-11, BP and Tesoro own more than 200 retail outlets



Data source: State Board of Equalization,
NAICS Code 4471, 9/2009

Producers/Importers of Gasoline

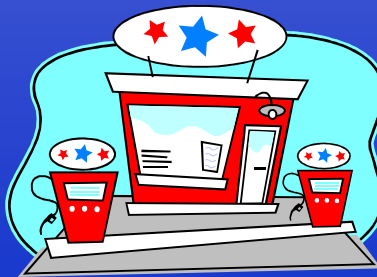


- Motor vehicle gasoline by supplier
- Percent of 14.8 billion gallons supplied from July 2008-June 2009
- Includes in-state production, imports, blends and additives

Data source: Board of Equalization, online monthly motor vehicle fuel distribution reports, www.boe.ca.gov/sptaxprog/spftrpts.htm

Regulated Party

Propose changing regulated party from
Owner/lessors of gasoline retail outlets
to
Producers and importers of gasoline





Calculating fuel demand and number of CF Outlets

- MXDV or Maximum Demand Volume
$$= \frac{(\# \text{DCFVs} \times \text{AMT}^\dagger)}{\text{average fuel economy}}$$
- # Outlets = $\frac{\text{MXDV} - \text{fleet discount}}{\text{throughput volume}}$
- **Throughput volume** 300,000 gge/year for liquid fuels (822 gal/day)
- 400,000 therms/year for gaseous fuels (963 kg/day)

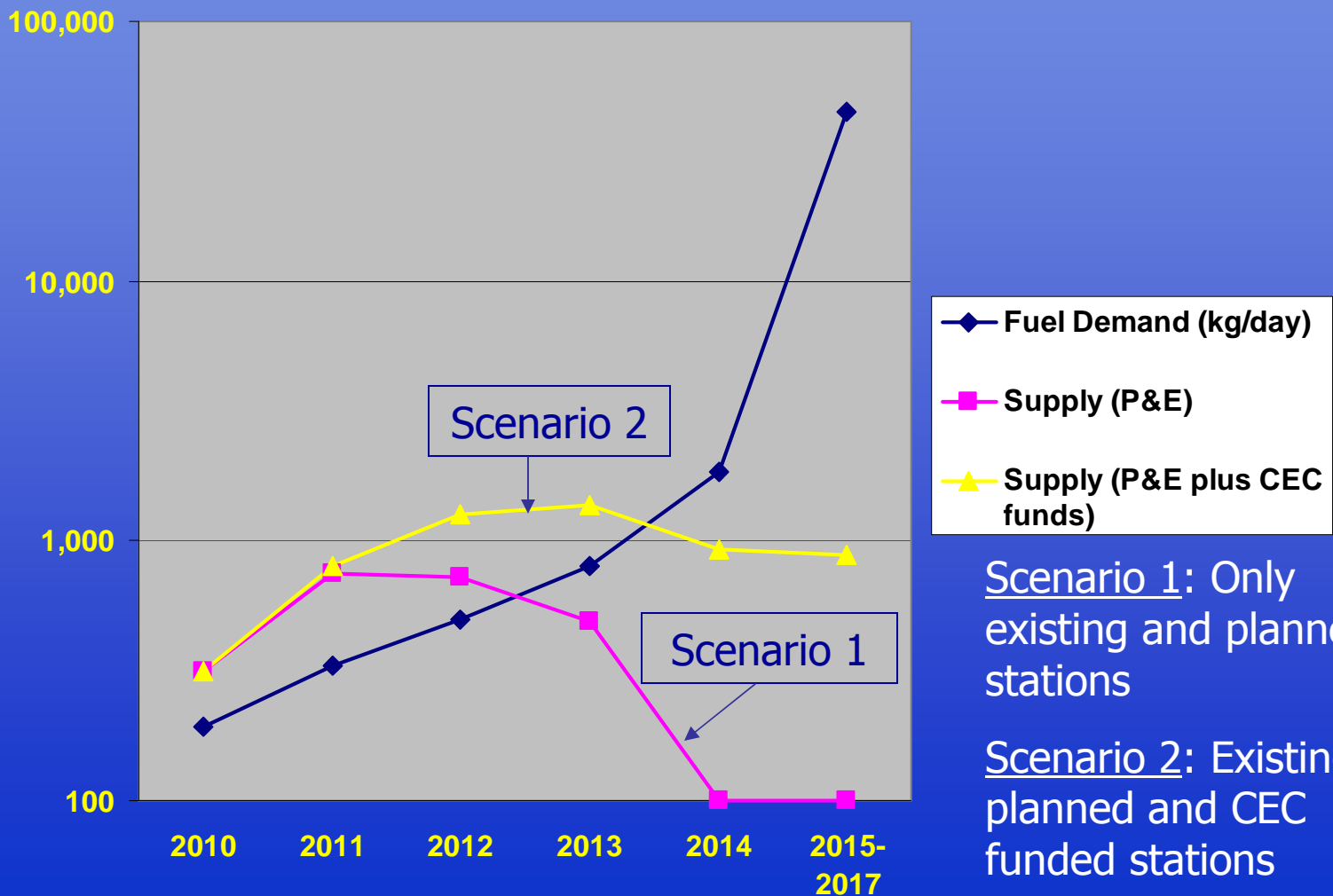
[†]AMT per annual mileage accrual rates for that MY and vehicle class, EMFAC



Regulated Party Provides “Fair Share”

- Gasoline producers/importers supply their share
 - Based on the gasoline each company produces/imports to California (BOE data)
- Per-outlet volume determined by vehicle demand profiles
- EO retains input on outlet locations

Demand vs. Supply- Hydrogen Example



Scenario 2 – ARB and CEC Funded Stations

Year		2014	2015	2016	2017
FCVs and daily demand (kg/day)*		1,839	5,328	15,434	44,706
H2 supply-ARB and CEC Stations		925	875	875	875
H2 needed beyond supply		914	4,453	14,559	43,831
Refinery	% share				
BP	22%	201	980	3,203	9,643
CHEVRON	21%	192	935	3,057	9,205
TESORO	15%	137	668	2,184	6,575
VALERO	14%	128	623	2,038	6,136
CONOCOPHILLIPS	13%	119	579	1,893	5,698
EQUILON (SHELL)	8%	73	356	1,165	3,506
EXXONMOBIL	7%	64	312	1,019	3,068

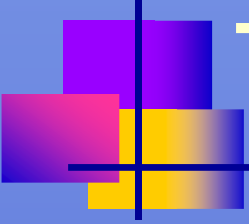
* FCV numbers estimated for 2015, 2016, 2017 based on OEM projection of 42,811 for 2015-2017



Designated Clean Fuel Vehicle Volume Calculation

- Survey OEMs annually and project DCFVs two years ahead
- Example – 2011 surveys for potential January 2013 compliance:
 - MY 2013 projections
 - + MY 2012 projections
 - + 1/6 MY 2011 projections
 - + DCFVs registered thru 7/2011
 - Total projections and sales
 - 0.75 * DCFVs registered in fleets
 - Total DCFVs**
- If total DCFVs $\geq 20,000$, activate regulation

OEM Projection and Activation Timeframe – A+2

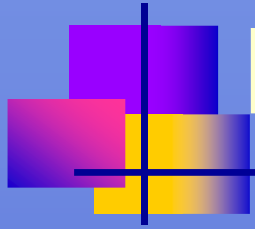
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- Q2 year A: OEM projections to ARB
 - (model years A, A+1, & A+2)
 - Q4 year A: ARB notifies regulated parties (RPs)
 - April year A+1: RPs propose multiple outlet locations
 - July year A+1: RPs and ARB finalize outlet locations
 - January 1, year A+2: RPs complete required outlets

Do we need an additional year?



Alternate OEM Projection and Activation Timeframe – A+3

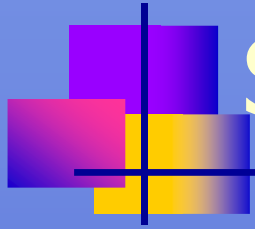
- Q2 year A: OEM projections to ARB
 - (model years A, A+1, A+2 & A+3)
- Q4 year A: ARB notifies regulated parties (RPs)
- April year A+1: RPs propose initial multiple locations
- Q3 year A+1: ARB notifies RPs with final obligation
- Q4 year A+1: RPs and ARB finalize outlet locations
 - RPs initiate contracting/permitting
- January 1, year A+3: RPs complete required outlets



Early Compliance Reward

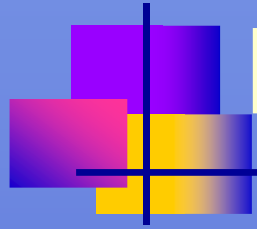
Early compliance incentives would:

- Apply to RP's that have placed stations before regulation activation
- Lessen the RP's compliance burden when the regulation is activated
- Apply only if the RP's station(s) remain operational while the trigger is active
- Increases compliance burden for other RPs



Summary of Proposed Changes

1. DCFV = ZEVs or SULEV-certified AFVs
2. RPs = Producer/Importers of gasoline
3. Activation Trigger = 2000 DCFVs
4. Compliance = RP dispenses their fair share of fuel with throughput based on demand
5. Modify or extend timeline from RP notification to station operation
6. Reward for early compliance



Regulatory Timeframe

- April 1, 2010: 1st workshop
- June 2010: 2nd workshop (tentative)
- October 2010: Release ISOR and draft regulatory changes
- December 2010: board hearing

CFO website and contact information



www.arb.ca.gov/fuels/altfuels/cf-outlets/cf-outlets.htm

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